Hatch Mott MacDonald

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1600 West Carson Street
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October 4, 2012

Ms. Liz Ottinger
Office of Municipal Assistance (3WP24)
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

Subject: Municipal Sanitary Authority of the City of New Kensington
Headworks Analysis for Local Limits Reevaluation
HMM Project 303965

Dear Ms. Ottinger:

On behalf of the Municipal Sanitary Authority of the City of New Kensington, please find enclosed one (1) copy of the Headworks Analysis for Local Limits Reevaluation in hard copy and one (1) copy of the Appendix B Spreadsheet on a CD.

If you have any questions regarding the report, please contact me.

Sincerely,

Hatch Mott MacDonald

Linda French

Linda French
Project Scientist
T 412.497.2912 F 412.497.2901
Linda.French@hatchmott.com

LDF/msr
Enclosures
cc: Joseph Ditty (MSANK)
Daniel H. Rowe, Jr. (MSANK)
Stephen Polen (HMM)

THE MUNICIPAL SANITARY AUTHORITY OF THE CITY OF NEW KENSINGTON

120 Logans Ferry Road, New Kensington, PA. 15068-2046
Phone (724) 335-9813 - Fax (724) 335-8289

August 8, 2011

Ms. Elizabeth Ottinger
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

MUNICIPAL SANITARY AUTHORITY OF THE CITY OF NEW KENSINGTON
NPDES PERMIT NO. PA0027111
HEADWORKS ANALYSIS SAMPLING PLAN

Dear Ms. Ottinger:

On behalf of the Municipal Sanitary Authority of the City of New Kensington (MSANK), please find enclosed the proposed Headworks Analysis Sampling Plan that is being submitted for your review and approval.

It should be noted that there have been no significant changes in the number or type of industrial discharges to the MSANK treatment plant or to the influent, effluent and sludge quality since the previous headworks analysis was conducted in 2004. Based on these considerations, MSANK desires to conduct the required Headworks Analysis in the most cost effective manner possible.

Thank you for your consideration of this matter.

THE MUNICIPAL SANITARY AUTHORITY OF THE
CITY OF NEW KENSINGTON

Daniel H. Rowe, Jr.
Manager

Enclosure

Cc:
David Ponchione, P.E. – PADEP
Stephen Polen, P.E. – HMM
Linda French – HMM

HEADWORKS ANALYSIS SAMPLING PLAN

A. Pollutants to be Evaluated

MSANK proposes to evaluate a total of eighteen parameters as part of the Headworks Analysis. The Headworks Analysis evaluation will consist of the "standard ten" parameters including Arsenic, Cadmium, Chromium, Copper, Cyanide, Lead, Mercury, Nickel, Silver and Zinc. Molybdenum and Selenium will also be evaluated due to their inclusion in EPA's and Pennsylvania sludge quality program. MSANK also has local limitations for Carbonaceous Biochemical Oxygen Demand, Total Suspended Solids, Hexavalent Chromium, Oil and Grease, Temperature and pH. No additional toxic pollutants are listed in the NPDES permit, nor have other priority pollutants been detected at significant levels during the priority pollutant scans conducted during the quarterly monitoring required by the Pretreatment Program.

B. Sampling Points

MSANK proposes the use of five sampling locations to conduct the Headworks Analysis. The proposed sampling locations are:

1. Raw Influent – the raw influent samples will be collected prior to the influent combining with any recycle or other internal waste streams.

2. Influent to Digester

3. Final Effluent

4. Background samples solely from domestic sources - MSANK applies the local limitations to commercial as well as industrial facilities within the service area. The Municipal Water Authority of the City of New Kensington is the sole supplier of potable water within the MSANK service area. MSANK proposes to collect background samples from sewer segments located in residential sections of Lower Burrell, the City of Arnold and the City of New Kensington. The background samples will be collected on the same days that the Influent and Effluent samples are collected.

5. Sludge

C. Number and Type of Sampling Events

1. Historical Sample Data

MSANK proposes to use historical monitoring data from years 2006 to 2010 to supplement the samples to be collected for the Headworks Analysis.

2. Proposed Sample Data

In order to assess current plant conditions, MSANK proposes to supplement the referenced historical data by conducting sampling on a daily basis for a five-day period. Grab samples will be collected for Cyanide, Hexavalent Chromium, and Oil and Grease. Temperature and pH will be evaluated through on-site testing procedures. All other parameters will be evaluated using 24-hour composite samples. Proposed sample data includes the following:

a. Raw Influent and Final Effluent

Five, 24-hour composite samples of the Raw Influent and Final Effluent samples will be collected for analysis. These samples will be analyzed for the eighteen parameters referenced previously.

b. Influent to Digester

A total of five daily grab samples of Influent to Digester will be collected and analyzed for the non-conservative parameter of Cyanide. The samples will be collected on days when Influent and Effluent samples are being collected.

c. Background

Six, 24-hour composite samples of Background wastewater from domestic sources will be analyzed for the eighteen parameters referenced previously. Two samples will be collected from a background sampling location in New Kensington, two samples will be collected from a sampling location in Arnold and two samples will be collected from a sampling location in Lower Burrell.

d. Sludge

Five samples of sludge will be collected from the belt filter press area at the treatment plant. In order to obtain a representative sample, grab samples of sludge will be collected and then combined to form a single composite sample of sludge that will be analyzed for the eighteen parameters referenced previously. One composite sample of sludge will be collected per day, over a five-day period. Sludge samples will be collected on days when Influent and Effluent samples are being collected.

D. Analytical Methods/Detection Levels

MSANK proposes to conduct all pollutant analyses using EPA methodology with the most sensitive detection levels available for each method. A listing of the parameters and the proposed analytical methods are as follow:

Parameter	Analytical Method	Parameter	Analytical Method
Arsenic	SM18 3113B	Total Suspended Solids	SM18 2540D
Cadmium	EPA 200.8	Hexavalent Chromium	EPA 218.4
Chromium	EPA 200.8	Oil and Grease	EPA 1664A
Copper	EPA 200.7	pH	EPA 150.1
Cyanide	EPA 335.3	Lead	SM18 3113B
Mercury	SM18 3112B	Temperature	SM18 2550B
Nickel	EPA 200.8	Carbonaceous Biochemical Oxygen Deman d	EPA 405.1
Silver	EPA 272.2		
Zinc	EPA 200.7		
Molybdenum	EPA 200.8		
Selenium	SM18 3114B		

E. Schedule

MSANK proposes to conduct the required headworks analysis under the following schedule:

Sample Collection	September 2011
Evaluation of Sample Collection Data	October 2011
Headwork Analysis / Local Limits Reevaluation	November 2011
Submission of Local Limits Reevaluation to EPA	December 2011

Re: FW: New Kensington Followup Headwork Analysis

John Lovell to: Ponchione, David 07/13/2011 03:59 PM
Cc: Elizabeth Ottinger

Dave - Sorry about losing the file. I did take a look at the data and I don't think that it justifies skipping the local limits reevaluation. There are 3 reasons why I came to that conclusion.

1 - I think the data that they submitted shows that the removal for several of the pollutants are not consistent with the removals used in the 2004 local limits evaluation (this is the most recent evaluation that we have). I've attached a spreadsheet that evaluates the removals based on the data that they submitted and shows the 2006 through 2010 average and the 2004 removal. The removals for several pollutants appears to have changed. That would suggest that the local limits for those pollutants may need to be changed.

New Kensington Removals.xlsx

2 - Looking at the evaluations of the influent and effluent data that we've done with the annual pretreatment reports for the last few years indicates that there have been exceedances of the influent, effluent, and sludge goals for some pollutants. While exceedances of these goals are not violations, they do indicate potential issues with the local limits or the goals that are calculated based on the last limits evaluation. Those issues suggest that the limits (and the goals that are derived from the limits) need to be reevaluated.

3 - Since 2004 I'm pretty sure you guys have revised some of the water quality standards. Since the water quality standards are used to develop the local limits, that would suggest some of the local limits will change based on the changes in the water quality standards.

Bottom line is that I don't think that there is justification for skipping the limits reevaluation.

Let me know if you have any questions. I'm out on vacation starting tomorrow and won't be back until 7/25, but we can discuss it at that time if you have any questions.

John Lovell
Pretreatment Coordinator
EPA Region 3
1650 Arch Street
Philadelphia, PA 19103-2029
215-814-5790
215-814-2318 (fax - NEW)

"Ponchione, David" Per your request. ... 07/12/2011 07:52:00 AM

From: "Ponchione, David" <dponchione@state.pa.us>
To: John Lovell/R3/USEPA/US@EPA
Date: 07/12/2011 07:52 AM
Subject: FW: New Kensington Followup Headwork Analysis

Per your request.

From: Ponchione, David
Sent: Thursday, April 07, 2011 1:05 PM
To: 'Lovell.John@epamail.epa.gov'
Subject: New Kensington Followup Headwork Analysis

John,

Attached is MSANK's response concerning their request to delay conducting a headwork's analysis until their next NPDES renewal permit is issued. I included the data that was submitted with their April 4th letter. Also enclosed is the March 10, 2011 letter that I sent to them. I'll use your comments in my response.

Thanks,
Dave

[attachment "4705_001.pdf" deleted by John Lovell/R3/USEPA/US]

New Kensington Removals

Pollutant	2004 Removal	2006 Removal	2007 Removal	2008 Removal	2009 Removal	2010 Removal	Avg 2006 - 2010
Arsenic	45	-	-	-	-	-	-
Cadmium	67	-	-	-	-	-	-
Chromium	77.6	-	73.68	47.06	73.91	-	64.89
Copper	72.9	33.06	79.73	61.11	80.82	50.00	60.94
Cyanide	69	-	-	-	-	-	-
Lead	81.9	-	64.29	45.45	50.00	-	53.25
Mercury	60	-	-	-	-	-	-
Molybdenum	40.9	-	-	-	-	-	-
Nickel	44.4	-	73.91	45.45	57.14	17.86	48.59
Selenium	50	-	-	-	-	-	-
Silver	78.2	-	-	-	-	-	-
Zinc	53.4	41.78	75.00	56.21	56.76	33.94	52.74
Ammonia	36.5	82.20	76.69	80.55	92.38	76.19	81.60
Hex Chrome	0	-	-	-	-	-	-
Phenolics	77.8	-	54.55	-	50.88	-	52.71

2004 removal is the removal from the most recent local limits evaluation.

New Kensington Removal Calculation

	2006				2007				2008			
Pollutant	Inf	Eff	Removal	Removal	Inf	Eff	Removal	Removal	Inf	Eff	Removal	Removal
Arsenic	<0.01	<0.01	#VALUE!	-	<0.01	<0.01	#VALUE!	-	<0.01	<0.01	#VALUE!	-
Cadmium	<0.005	<0.005	#VALUE!	-	<0.005	<0.005	#VALUE!	-	<0.005	<0.005	#VALUE!	-
Chromium	<0.011	<0.008	#VALUE!	-	0.019	0.005	73.6842105	73.68	0.017	0.009	47.0588235	47.06
Copper	0.245	0.164	33.0612245	33.06	0.074	0.015	79.7297297	79.73	0.072	0.028	61.1111111	61.11
Cyanide	<0.009	0.014	#VALUE!	-	<0.005	0.009	#VALUE!	-	<0.005	<0.007	#VALUE!	-
Lead	<0.012	<0.007	#VALUE!	-	0.014	0.005	64.2857143	64.29	0.011	0.006	45.4545455	45.45
Mercury	<0.0002	<0.0002	#VALUE!	-	<0.0002	<0.0002	#VALUE!	-	<0.001	<0.0003	#VALUE!	-
Molybdenum			#DIV/0!	-			#DIV/0!	-			#DIV/0!	-
Nickel	<0.030	0.03	#VALUE!	-	0.046	0.012	73.9130435	73.91	0.044	0.024	45.4545455	45.45
Selenium	<0.008	<0.008	#VALUE!	-	<0.011	<0.01	#VALUE!	-	<0.012	<0.01	#VALUE!	-
Silver		<0.005	#VALUE!	-	<0.005	<0.005	#VALUE!	-	<0.006	<0.005	#VALUE!	-
Zinc	0.225	0.131	41.7777778	41.78	0.284	0.071	75	75.00	0.29	0.127	56.2068966	56.21
Ammonia	9.55	1.7	82.1989529	82.20	14.16	3.3	76.6949153	76.69	13.37	2.6	80.5534779	80.55
Hex Chrome	<0.01	<0.01	#VALUE!	-	<0.005	<0.005	#VALUE!	-	<0.005	<0.005	#VALUE!	-
Phenolics	<0.13	0.13	#VALUE!	-	0.011	0.005	54.5454545	54.55	0.07	<0.08	#VALUE!	-

New Kensington Removal Calculation

	2009				2010			
Pollutant	Inf	Eff	Removal	Removal	Inf	Eff	Removal	Removal
Arsenic	<0.01	<0.01	#VALUE!	-	<0.01	<0.01	#VALUE!	-
Cadmium	<0.005	<0.005	#VALUE!	-	<0.005	<0.005	#VALUE!	-
Chromium	0.023	0.006	73.9130435	73.91	<0.008	<0.007	#VALUE!	-
Copper	0.073	0.014	80.8219178	80.82	0.034	0.017	50	50.00
Cyanide	<0.005	<0.008	#VALUE!	-	<0.008	<0.008	#VALUE!	-
Lead	0.01	0.005	50	50.00	<0.007	<0.005	#VALUE!	-
Mercury	<0.0002	<0.0002	#VALUE!	-	<0.0002	<0.0002	#VALUE!	-
Molybdenum			#DIV/0!	-			#DIV/0!	-
Nickel	0.049	0.021	57.1428571	57.14	0.028	0.023	17.85714286	17.86
Selenium	<0.01	<0.01	#VALUE!	-	<0.01	<0.01	#VALUE!	-
Silver	<0.005	<0.005	#VALUE!	-	<0.005	<0.005	#VALUE!	-
Zinc	0.296	0.128	56.7567568	56.76	0.165	0.109	33.93939394	33.94
Ammonia	21	1.6	92.3809524	92.38	12.6	3	76.19047619	76.19
Hex Chrome	<0.006	<0.006	#VALUE!	-	<0.01	<0.01	#VALUE!	-
Phenolics	0.057	0.028	50.877193	50.88	<0.35	<0.24	#VALUE!	-

THE MUNICIPAL SANITARY AUTHORITY OF THE CITY OF NEW KENSINGTON

120 Logans Ferry Road, New Kensington, PA. 15068-2046
Phone (724) 335-9813 - Fax (724) 335-8289

April 4, 2011

Mr. David Ponchione
Environmental Engineer
Water Management
PA Department of Environmental Protection
400 Waterfront Drive
Pittsburgh, PA 15222-4745

Re: Municipal Sanitary Authority of the City of New Kensington
NPDES Permit PA027111
Headworks Analysis

Dear Mr. Ponchione:

On behalf of the Municipal Sanitary Authority of the City of New Kensington (MSANK), this letter responds to your letter dated March 10, 2011. Your letter stated that if MSANK believes the local limits re-evaluation required by their current NPDES permit would result in maintaining the current local limits, a modified evaluation could be submitted to satisfy the local limits re-evaluation requirement.

This submission constitutes MSANK's modified evaluation. A summary of the historical influent, effluent and sludge yearly average data from 2006 though 2010 is attached. This summary demonstrates that the characteristics of the influent, effluent and sludge have remained consistent over the past five years.

The NPDES permit that was issued by the Department of Environmental Protection on June 24, 2010 includes the same permit limitations as the NPDES permit that was in effect when the previous headworks analysis was conducted in 2004. There have been no changes to the sludge standards or known changes to the inhibition criteria.

There have also been no changes to the flow rates, removal rates and background concentrations at the treatment plant. Copies of the treatment plant Monthly Performance Summaries from 2006 through 2010 are attached for your review. These summaries demonstrate that there have been no changes in the effectiveness of the treatment plant processes.

Additionally, the headworks analysis conducted in 2004 resulted in more stringent local limits therefore a headworks re-evaluation to meet the sludge goals is not warranted.

Based on the consistency of the factors referenced above, MSANK believes the re-evaluation would result in maintaining the existing local limits therefore a re-evaluation of the local limits is not necessary at this time. MSANK requests that the requirement to conduct a headworks analysis be delayed until the next NPDES renewal permit is issued.

Thank you for your consideration.

Daniel H. Rowe, Jr.
Manager

Cc Linda French, H.M.M.
File

MUNICIPAL SANITARY AUTHORITY OF THE CITY OF NEW KENSINGTON
WASTEWATER TREATMENT PLANT
2010
MONTHLY PERFORMANCE SUMMARY

	INFLUENT								30 DAY AVERAGE - EFFLUENT					MAX. WEEKLY AVERAGE			MAXIMUM DAY			FINAL EFFLUENT	
	BYPASS FLOW	TREATED FLOW	TOTAL FLOW	FLOW MAX	BOD5 INF.	TSS INF.	INF. LOAD BOD5	INF. LOAD TSS	CBOD5 EFF.	TSS EFF	EFFLUENT LOAD CBOD5	EFFLUENT LOAD TSS	FECAL COL.	CBOD5	TSS	FECAL COL.	CBOD5	TSS	FECAL COL.	CL2	pH
	MGD	MGD	MGD	MGD	mg/l	mg/l	LB./D	LB./D	mg/l	mg/l	LB./D	LB./D	#/100 ml	mg/l LB./D	mg/l LB./D	#/100 ml	mg/l LB./D	mg/l LB./D	#/100 ml	mg/l	S.U.
PLANT DESIGN	****	****	6.0	****	204	204	8500	7490								1000					
PERMIT PA0027111									25	30	1251	1501	200* 2000	37.5 1877	45 2252	****			****	1.0**	6.0 - 9.0
JANUARY 2010	0.822	4.348	5.170	10.71	-	-	-	-	16	13	729	578	133	24.0 1321	19 908	784	48 2250	30 1859	19900	0.53	6.8 7.5
FEBRUARY 2010	0.399	4.410	4.809	8.13	-	-	-	-	16	22	638	853	36	28.0 982	27 1327	105	83 2810	114 5134	1320	0.65	7.0 7.4
MARCH 2010	1.842	5.276	7.118	10.90	-	-	-	-	16	10	952	801	159	19.0 1508	15 1219	811	26 1932	42 2193	18900	0.61	7.2 7.5
APRIL 2010	0.388	4.322	4.710	8.90	-	-	-	-	11	11	443	495	24	19.0 728	13 858	261	21 1559	65 4825	17900	0.88	7.3 7.6
MAY 2010	1.329	5.050	6.379	11.40	-	-	-	-	7	14	396	775	87	9.0 477	17 1305	170	48 2146	179 8002	10100	0.40	6.9 7.5
JUNE 2010	1.399	5.290	6.689	9.36	-	-	-	-	7	9	414	513	54	12.0 747	17 835	91	27 1738	41 2110	192	0.54	7.2 8.6
JULY 2010	0.463	5.094	5.557	8.7	-	-	-	-	7	5	329	221	51	12.0 578	11.0 367	149	21 1077	30 1066	640	0.38	7.0 7.6
AUGUST 2010	0.334	4.462	4.796	9.22	-	-	-	-	6	8	254	364	62	7.0 388	10 702	135	16 1230	33 2538	388	0.50	7.1 7.5
SEPTEMBER 2010	0.383	3.814	4.197	8.66	-	-	-	-	6	8	218	292	44	8.0 304	18 680	55	15 701	43 2008	995	0.41	6.8 7.4
OCTOBER 2010	0.261	4.316	4.577	6.66	-	-	-	-	5	3	179	129	40	5.0 223	3.0 161	64	9 464	6 370	900	0.44	7.0 7.4
NOVEMBER 2010	1.149	4.080	5.229	11.93	121	-	5064	-	6	5	336	284	179	8.0 580	8.0 580	272	16 1581	24 2186	4100	0.31	5.8 7.4
DECEMBER 2010	1.346	5.095	6.441	14.98	105	-	5130	-	13	12	681	630	471	13.0 1025	12 935	3203	15 1566	22 2297	10900	0.24	6.8 7.3
ANNUAL AVERAGE	0.843	4.630	5.473	MAX. 14.98	113	-	5097	-	10	10	464	495	113	13.7 738	14 823	508	29 1588	52 2882	7186	0.49	7.0 7.6

CBOD5 - FIVE DAY CARBONACEOUS BIOCHEMICAL OXYGEN DEMAND
TSS - TOTAL SUSPENDED SOLIDS
NH3-N - AMMONIA NITROGEN
DO - DISSOLVED OXYGEN
FECAL COL. - FECAL COLIFORM

*PERMIT LIMIT FOR PERIOD 5/1 - 9/30
** Effective 9/26/98

DECEMBER 2009	0.612	4.309	4.921	11.35	-	-	-	-	8	7	365	321	175	14.0 678	13 642	762	28 1373	29 1422	21200	0.42	6.9 7.4

MUNICIPAL SANITARY AUTHORITY OF THE CITY OF NEW KENSINGTON
WASTEWATER TREATMENT PLANT
2009
MONTHLY PERFORMANCE SUMMARY

	INFLUENT								30 DAY AVERAGE - EFFLUENT					MAX. WEEKLY AVERAGE			MAXIMUM DAY			FINAL EFFLUENT	
	BYPASS FLOW	TREATED FLOW	TOTAL FLOW	FLOW MAX	BOD5 INF.	TSS INF.	INF. LOAD BOD5	INF. LOAD TSS	CBOD5 EFF.	TSS EFF	EFFLUENT LOAD CBOD5	EFFLUENT LOAD TSS	FECAL COL.	CBOD5 mg/l LB./D	TSS mg/l LB./D	FECAL COL. #/100 ml	CBOD5 mg/l LB./D	TSS mg/l LB./D	FECAL COL. #/100 ml	CL2 mg/l	pH S.U.
	MGD	MGD	MGD	MGD	mg/l	mg/l	LB./D	LB./D	mg/l	mg/l	LB./D	LB./D	#/100 ml	LB./D	LB./D		LB./D	LB./D			
PLANT DESIGN	****	****	6.0	****	204	204	8500	7490								1000					
PERMIT PA0027111									25	30	1251	1501	200 * 2000	37.5 1877	45 2252	****			****	1.0**	6.0 - 9.0
JANUARY 2009	0.683	5.772	6.455	11.31	-(a)	–	–	–	10	10	536	516	831	10.0 648	13 586	2054	12 1132	43 1919	14200	0.18	6.8 7.5
FEBRUARY 2009	0.858	5.953	6.811	9.82	–	–	–	–	11	9	661	554	246	16.0 1151	16 1131	4267	27 2015	32 2389	13200	0.47	6.9 7.3
MARCH 2009	0.157	5.002	5.159	7.69	–	–	–	–	9	9	389	429	29	13.0 608	16 747	72	22 1279	26 1511	748	0.49	6.8 7.2
APRIL 2009	0.411	5.355	5.766	12.88	–	–	–	–	7	6	340	290	63	7.0 475	5 339	394	10 1074	13 904	3300	0.49	6.8 7.2
MAY 2009	0.257	5.078	5.335	7.79	–	–	–	–	8	8	353	342	103	10.0 577	11 601	175	15 975	19 1234	11000	0.47	6.8 7.3
JUNE 2009	0.099	4.400	4.499	10.55	–	–	–	–	7	9	294	434	71	10.0 497	21 1187	99	35 2245	100 6413	3100	0.37	6.8 7.4
JULY 2009	0.334	4.663	4.997	10.64	–	–	–	–	15	25	661	995	88	12.0 697	65.0 1872	365	93 3295	302 9017	8300	0.45	6.9 7.4
AUGUST 2009	0.312	4.640	4.952	8.70	–	–	–	–	6	5	247	235	67	8.0 407	8 445	336	12 871	27 1457	3700	0.33	7.0 7.3
SEPTEMBER 2009	0.141	3.688	3.829	7.28	–	–	–	–	5	5	168	190	52	7.0 266	9 399	165	13 677	18 1093	720	0.36	6.8 8.5
OCTOBER 2009	0.192	4.518	4.710	6.97	–	–	–	–	8	17	338	715	170	11.0 469	28.0 1210	244	20 1163	70 3100	18800	0.31	6.9 7.4
NOVEMBER 2009	0.076	3.662	3.738	5.62	–	–	–	–	11	9	347	271	92	26.0 788	15 493	493	128 3640	36 1045	8900	0.28	7.0 7.4
DECEMBER 2009	0.612	4.309	4.921	11.35	–	–	–	–	8	7	365	321	175	14.0 678	13 642	762	28 1373	29 1422	21200	0.42	6.9 7.4
ANNUAL AVERAGE	0.344	4.753	5.098	MAX. 12.88	–	–	–	–	9	10	392	441	166	12.0 605	18 804	786	35 1645	60 2625	8972	0.38	6.9 7.4

CBOD5	- FIVE DAY CARBONACEOUS BIOCHEMICAL OXYGEN DEMAND
TSS	- TOTAL SUSPENDED SOLIDS
NH3-N	- AMMONIA NITROGEN
DO	- DISSOLVED OXYGEN
FECAL COL.	- FECAL COLIFORM

*PERMIT LIMIT FOR PERIOD 5/1 - 9/30

** Effective 9 / 26 / 98

(a) The influent sampler has been temporarily removed because of project construction activities

DECEMBER 2008	1.694	5.893	7.587	13.87	–	–	–	–	11	12	759	834	57	16.0 1259	15 1321	556	21 2240	41 4373	13200	0.70	6.8 7.3

MUNICIPAL SANITARY AUTHORITY OF THE CITY OF NEW KENSINGTON
WASTEWATER TREATMENT PLANT
2008
MONTHLY PERFORMANCE SUMMARY

	INFLUENT								30 DAY AVERAGE - EFFLUENT					MAX. WEEKLY AVERAGE			MAXIMUM DAY			FINAL EFFLUENT	
	BYPASS FLOW	TREATED FLOW	TOTAL FLOW	FLOW MAX	BOD5 INF.	TSS INF.	INF. LOAD BOD5	INF. LOAD TSS	CBOD5 EFF.	TSS EFF	EFFLUENT LOAD CBOD5	EFFLUENT LOAD TSS	FECAL COL.	CBOD5	TSS	FECAL COL.	CBOD5	TSS	FECAL COL.	CL2	pH
	MGD	MGD	MGD	MGD	mg/l	mg/l	LB./D	LB./D	mg/l	mg/l	LB./D	LB./D	#/100 ml	mg/l LB./D	mg/l LB./D	#/100 ml	mg/l LB./D	mg/l LB./D	#/100 ml	mg/l	S.U.
PLANT DESIGN	****	****	6.0	****	204	204	8500	7490								1000					
PERMIT PA0027111									25	30	1251	1501	200* 2000	37.5 1877	45 2252	****			****	1.0**	6.0 - 9.0
JANUARY 2008	0.122	6.062	6.184	8.54	57	123	5256	6335	6	8	342	457	79	8.0 468	11 679	162	18 1282	45 2668	2280	0.58	6.7 7.2
FEBRUARY 2008	1.280	7.530	8.810	13.57	64	74	4492	5323	12	17	950	1273	79	12.0 1070	19 1433	222	31 2759	50 4449	740	0.71	6.9 7.4
MARCH 2008	1.764	7.396	9.160	14.10	105	97	7311	7537	16	21	1291	1708	201	29.0 2358	40 3409	256	75 5717	144 10977	12700	0.51	6.9 7.4
APRIL 2008	0.330	5.758	6.088	10.45	120	157	5652	8059	14	19	754	967	85	29.0 1684	34 2055	370	131 8205	182 11399	10400	0.64	7.1 7.5
MAY 2008	1.025	5.989	7.014	11.01	91	123	5041	6911	8	7	501	425	67	11.0 894	9 679	223	18 1380	26 1993	5800	0.40	7.0 7.5
JUNE 2008	0.296	5.034	5.330	10.15	119	164	4886	6767	6	8	334	563	42	11.0 790	23 2098	104	42 3555	138 11682	7300	0.42	7.0 7.4
JULY 2008	0.225	4.680	4.905	9.82	(a)	–	–	–	6	6	272	251	60	8.0 431	9.0 333	115	11 738	19 1006	11400	0.32	6.8 7.5
AUGUST 2008	0.062	3.968	4.030	5.82	–	–	–	–	6	7	210	237	98	7.0 241	12 403	202	12 550	34 1140	9900	0.28	6.8 7.3
SEPTEMBER 2008	0.313	4.164	4.477	12.80	–	–	–	–	5	5	242	256	96	10.0 655	13 731	444	26 2776	24 2562	11700	0.23	6.7 7.5
OCTOBER 2008	0.108	4.166	4.274	8.09	–	–	–	–	6	8	219	271	79	7.0 310	13.0 394	211	10 675	60 1811	16800	0.36	6.9 7.3
NOVEMBER 2008	0.127	4.237	4.364	6.99	–	–	–	–	6	7	207	253	70	6.0 297	8 357	260	16 933	23 963	8100	0.43	6.8 7.3
DECEMBER 2008	1.694	5.893	7.587	13.87	–	–	–	–	11	12	759	834	57	16.0 1259	15 1321	556	21 2240	41 4373	13200	0.70	6.8 7.3
ANNUAL AVERAGE	0.612	5.406	6.019	MAX. 14.1	93	123	5440	6822	9	10	507	625	84	12.8 871	17 1158	260	34 2568	66 4585	9193	0.46	6.9 7.4

CBOD5	- FIVE DAY CARBONACEOUS BIOCHEMICAL OXYGEN DEMAND
TSS	- TOTAL SUSPENDED SOLIDS
NH3-N	- AMMONIA NITROGEN
DO	- DISSOLVED OXYGEN
FECAL COL.	- FECAL COLIFORM

*PERMIT LIMIT FOR PERIOD 5/1 - 9/30

** Effective 9 / 26 / 98

(a) The influent sampler has been temporarily removed because of project construction activities

DECEMBER 2007	1.060	7.380	8.440	13.60	81	101	5175	6712	11	13	810	1015	780	17.0 1417	23 1854	5015	21 2382	35 3970	10400	0.25	6.8 7.5

MUNICIPAL SANITARY AUTHORITY OF THE CITY OF NEW KENSINGTON
WASTEWATER TREATMENT PLANT
2007
MONTHLY PERFORMANCE SUMMARY

	INFLUENT								30 DAY AVERAGE - EFFLUENT					MAX. WEEKLY AVERAGE			MAXIMUM DAY			FINAL EFFLUENT	
	BYPASS FLOW	TREATED FLOW	TOTAL FLOW	FLOW MAX	BOD5 INF.	TSS INF.	INF. LOAD BOD5	INF. LOAD TSS	CBOD5 EFF.	TSS EFF	EFFLUENT LOAD CBOD5	EFFLUENT LOAD TSS	FECAL COL.	CBOD5 mg/l LB./D	TSS mg/l LB./D	FECAL COL. #/100 ml	CBOD5 mg/l LB./D	TSS mg/l LB./D	FECAL COL. #/100 ml	CL2 mg/l	pH S.U.
	MGD	MGD	MGD	MGD	mg/l	mg/l	LB./D	LB./D	mg/l	mg/l	LB./D	LB./D	#/100 ml								
PLANT DESIGN	****	****	6.0	****	204	204	8500	7490								1000					
PERMIT PA0027111									25	30	1251	1501	200* 2000	37.5 1877	45 2252	****			****	1.0**	6.0 - 9.0
JANUARY 2007	0.683	7.185	7.868	12.25	95.5	148	5761	9002	11	15	822	1013	290	17.0 125	19 1581	626	27 2421	64 5738	16400	0.32	6.8 7.4
FEBRUARY 2007	0.130	6.066	6.200	9.63	111	118	5504	9658	11	8	651	1003	52	16.0 1015	29 1898	123	52 3318	133 8486	2680	0.47	6.7 7.3
MARCH 2007	1.420	7.020	8.450	12.18	122	200	6382	11013	12	13	899	1006	92	16.0 1433	20 1864	111	33 5993	59 3454	832	0.34	6.8 7.2
APRIL 2007	0.460	6.980	7.440	10.88	74	98	4362	5896	7	6	482	415	58	9.0 674	8 513	128	19 1428	18 1428	1380	0.33	6.6 7.2
MAY 2007	0.067	5.358	5.425	8.34	108	141	4864	6346	7	6	309	278	18	10.0 485	9 359	21	12 866	17 733	276	0.30	6.6 8.5
JUNE 2007	0.467	5.050	5.517	8.86	86	140	3870	6390	6	9	296	488	25	8.0 424	14 904	48	22 1626	61 4507	3135	0.40	6.7 7.3
JULY 2007	0.202	5.078	5.280	10.1	83	117	3523	4875	6	8	286	406	69	8.0 387	18 862	297	16 1070	23 1937	10400	0.37	6.6 7.8
AUGUST 2007	0.676	6.079	6.755	14.45	76	104	3727	5432	6	7	401	503	109	7.0 486	9 759	248	16 1527	31 2854	11400	0.39	6.8 7.5
SEPTEMBER 2007	0.048	4.617	4.665	7.46	95	160	3698	6126	6	8	256	307	82	9.0 361	10 379	279	12 747	24 983	2300	0.33	6.7 7.2
OCTOBER 2007	0.052	4.342	4.404	7.6	142	195	5124	7120	8	12	306	558	57	11.0 579	33.0 1865	124	47 2826	192 11545	20900	0.39	6.9 7.3
NOVEMBER 2007	0.360	5.688	6.048	13.03	116	147	5177	6624	10	17	476	747	65	15.0 564	31 1160	121	44 1490	125 4233	3465	0.42	6.8 7.4
DECEMBER 2007	1.060	7.380	8.440	13.60	81	101	5175	6712	11	13	810	1015	780	17.0 1417	23 1854	5015	21 2382	35 3970	10400	0.25	6.8 7.5
ANNUAL AVERAGE	0.470	5.904	6.374	MAX. 14.45	99	145	4806	7100	8	10	500	645	141	11.9 663	19 1167	595	27 2141	65 4156	6964	0.36	6.7 7.5

CBOD5	- FIVE DAY CARBONACEOUS BIOCHEMICAL OXYGEN DEMAND
TSS	- TOTAL SUSPENDED SOLIDS
NH3-N	- AMMONIA NITROGEN
DO	- DISSOLVED OXYGEN
FECAL COL.	- FECAL COLIFORM

*PERMIT LIMIT FOR PERIOD 5/1 - 9/30

** Effective 9 / 26 / 98

DECEMBER 2006	0.023	5.236	5.259	7.20	147	214	6352	9302	7	10	325	456	60	9.0 400	15 673	217	25 1163	54 2513	1975	0.24	6.7 7.2

MUNICIPAL SANITARY AUTHORITY OF THE CITY OF NEW KENSINGTON
WASTEWATER TREATMENT PLANT
2006
MONTHLY PERFORMANCE SUMMARY

	INFLUENT								30 DAY AVERAGE - EFFLUENT					MAX. WEEKLY AVERAGE			MAXIMUM DAY			FINAL EFFLUENT	
	BYPASS FLOW	TREATED FLOW	TOTAL FLOW	FLOW MAX	BOD5 INF.	TSS INF.	INF. LOAD		CBOD5 EFF.	TSS EFF	EFFLUENT LOAD		FECAL COL.	CBOD5	TSS	FECAL COL.	CBOD5	TSS	FECAL COL.	CL2	pH
	MGD	MGD	MGD	MGD	mg/l	mg/l	BOD5 LB./D	TSS LB./D	mg/l	mg/l	CBOD5 LB./D	TSS LB./D	#/100 ml	mg/l LB./D	mg/l LB./D	#/100 ml	mg/l LB./D	mg/l LB./D	#/100 ml	mg/l	S.U.
PLANT DESIGN	****	****	6.0	****	204	204	8500	7490								1000					
PERMIT PA0027111									25	30	1251	1501	200* 2000	37.5 1877	45 2252	****			****	1.0**	6.0 - 9.0
JANUARY 2006	0.279	6.935	7.214	10.30	69	93	4972	5559	8	11	516	750	129	13.0 924	22 1608	522	22 1728	47 3951	2055	0.25	6.8 7.2
FEBRUARY 2006	0.076	5.969	6.045	8.86	108	118	5209	5744	7	8	341	413	211	8.0 492	12 739	919	13 841	26 1683	3200	0.16	6.6 7.7
MARCH 2006	0.037	5.752	5.789	10.26	116	156	5338	7194	7	6	311	283	63	9.0 373	6 337	366	13 552	10 710	1140	0.35	6.8 7.2
APRIL 2006	0.065	5.951	6.016	9.32	114	158	5649	7932	10	14	513	773	61	12.0 819	18 1376	164	49 3809	107 8317	4600	0.25	6.8 7.2
MAY 2006	0.005	6.847	6.852	11.54	91	133	4672	6913	8	10	525	770	13	11.0 979	23 1984	26	43 3884	121 10929	1035	0.15	6.9 7.9
JUNE 2006	0.174	6.606	6.432	11.69	131	194	6921	10539	7	10	432	672	22	9.0 696	12 1047	54	26 2535	56 5460	1284	0.17	6.9 7.4
JULY 2006	0.118	5.828	5.946	10.98	111	172	5258	8179	6	13	320	594	25	6.0 406	28 1241	56	23 973	99 4186	170	0.17	6.9 7.3
AUGUST 2006	0.001	4.221	4.222	5.67	157	196	5482	6885	12	19	433	665	18	31.0 1075	55 1885	228	67 2174	182 5905	13500	0.27	6.9 7.4
SEPTEMBER 2006	0.287	5.147	5.434	10.71	99	131	4157	5996	8	10	365	522	44	8.0 418	10 645	169	20 1131	43 2341	610	0.39	6.6 7.3
OCTOBER 2006	0.374	5.813	6.187	11.85	49	132	4241	5921	7	10	408	621	37	10.0 720	14.0 1053	104	22 2174	45 2676	672	0.31	6.8 7.4
NOVEMBER 2006	0.224	5.813	6.037	11.85	106	165	5155	8217	7	12	405	740	85	10.0 760	22 1801	183	25 2471	80 7906	565	0.22	6.9 7.3
DECEMBER 2006	0.023	5.236	5.259	7.20	147	214	6352	9302	7	10	325	456	60	9.0 400	15 673	217	25 1163	54 2513	1975	0.24	6.7 7.2
ANNUAL AVERAGE	0.139	5.843	5.953	MAX. 11.85	108	160	5284	7365	8	11	408	605	64	11.3 672	20 1199	251	29 1953	73 4715	2567	0.24	6.8 7.4

CBOD5	- FIVE DAY CARBONACEOUS BIOCHEMICAL OXYGEN DEMAND
TSS	- TOTAL SUSPENDED SOLIDS
NH3-N	- AMMONIA NITROGEN
DO	- DISSOLVED OXYGEN
FECAL COL.	- FECAL COLIFORM

*PERMIT LIMIT FOR PERIOD 5/1 - 9/30

** Effective 9 / 26 / 98

DECEMBER 2005	0.036	5.042	5.078	7.51	130	123	5273	5084	8	17	362	744	51	13.0 650	35 1746	149	60 3012	201 10092	9300	0.32	6.8 7.3

Municipal Sanitary Authority of New Kensington
Historical Monitoring Data Summary

Influent Data 2006 - 2010

	Units	Goal	2006 Average	2007 Average	2008 Average	2009 Average	2010 Average
CBOD	mg/l	217.3913	99	143	108	145	72
TSS	mg/l	294.1176	134	155	143	132	92
Cyanide	mg/l	0.0229	<0.009	<0.005	<0.005	<0.005	<0.008
Copper	mg/l	0.1934	0.245	0.074	0.072	0.073	0.034
Lead	mg/l	1.4632	<0.012	0.014	0.011	0.010	<0.007
Zinc	mg/l	0.559	0.225	0.284	0.290	0.296	0.165
Chromium	mg/l	1.3699	<0.011	0.019	0.017	0.023	<0.008
Nickel	mg/l	0.0794	<0.030	0.046	0.044	0.049	0.028
Cadmium	mg/l	0.1052	<0.005	<0.005	<0.005	<0.005	<0.005
Mercury	mg/l	0.02	<0.0002	<0.0002	<0.001	<0.0002	<0.0002
Arsenic	mg/l	0.0125	<0.010	<0.010	<0.01	<0.01	<0.010
Hex. Chromium	mg/l	0.25	<0.01	<0.005	<0.005	<0.006	<0.010
Selenium	mg/l	1.48	<0.008	<0.011	<0.012	<0.01	<0.01
Silver	mg/l	0.0586		<0.005	<0.006	<0.005	<0.005
Oil and Grease	mg/l	No Goal	<0.005	<9.55	<23.4	31	18.4
pH	s.u.	No Goal	7.2 / 7.6	7.1 / 7.2	7.1 / 7.5	7.2 / 7.6	7.2 / 8.3
Ammonia	mg/l	No Goal	9.55	14.16	13.37	21	12.6
Phosphorus	mg/l	No Goal	9.48	4.07	4.2	6.6	2.4
Phenol	mg/l	50	<0.13	0.011	0.07	0.057	<0.35
TPH	mg/l	No Goal	<5.0	<5.0	<7.86	6.4	<5.0

Effluent Data 2006 - 2010

	Units	Goal	2006 Average	2007 Average	2008 Average	2009 Average	2010 Average
CBOD	mg/l	25	6	14	17	11	16
TSS	mg/l	30	19	26	41	26	29
Cyanide	mg/l	0.338	0.014	0.009	<0.007	<0.008	<0.008
Copper	mg/l	0.26	0.164	0.015	0.028	0.014	0.017
Lead	mg/l	0.66	<0.007	<0.005	<0.006	<0.005	<0.005
Zinc	mg/l	2.18	0.131	0.071	0.127	0.128	0.109
Chromium	mg/l	0.25	<0.008	<0.005	<0.009	<0.006	<0.007
Nickel	mg/l	8.5	0.03	0.012	0.024	0.021	0.023
Cadmium	mg/l	0.087	<0.005	<0.005	<0.005	<0.005	<0.005
Mercury	mg/l	0.008	<0.0002	<0.0002	<0.0003	<0.0002	<0.0002
Arsenic	mg/l	3.0122	<0.010	<0.01	<0.010	<0.010	<0.010
Hex. Chromium	mg/l	No Goal	<0.010	<0.005	<0.005	<0.006	<0.010
Selenium	mg/l	0.74	<0.008	<0.01	<0.010	<0.010	<0.010
Silver	mg/l	0.088	<0.005	<0.005	<0.005	<0.005	<0.005
Oil and Grease	mg/l	No Goal	5	<5	9.4	<5	<5
pH	s.u.	No Goal	5.9 / 7.0	6.8 / 7.0	6.7 / 7.1	6.6 / 7.2	6.9 / 7.4
Ammonia	mg/l	No Goal	1.7	3.3	2.6	1.6	3
Phosphorus	mg/l	No Goal	11.6	1.3	2.29	1.58	1.1
Phenol	mg/l	1562	0.13	<0.005	<0.08	<0.028	<0.24
TPH	mg/l	No Goal	<5.0	<5.0	<5.0	<5.0	<5.0

Municipal Sanitary Authority of New Kensington
Historical Monitoring Data Summary

Sludge Data 2006 - 2010

	Units	Goal	2006 Average	2007 Average	2008 Average	2009 Average	2010 Average
CBOD	mg/kg	No Goal	10481	6437	1135	1707	15138
% Solids	mg/kg	No Goal	18.5	17.5	18.6	16.4	--
Cyanide	mg/kg	No Goal	<1.6	85.7	5.5	9.9	10.5
Copper	mg/kg	1500	718.8	906.9	117.9	856.4	868.8
Lead	mg/kg	300	150.1	152.7	101.8	116.4	125.1
Zinc	mg/kg	2800	2212	2768	2174	2530	3026
Chromium	mg/kg	No Goal	227.9	232.7	171.3	311.6	305.8
Nickel	mg/kg	420	337.4	511.8	474.4	679.1	763.9
Cadmium	mg/kg	41	10.9	7.1	3.1	4.9	10.0
Mercury	mg/kg	17	1.2	1.3	<0.5	0.7	0.3
Arsenic	mg/kg	39	<5.5	<5.9	<4.5	<6.6	<6.4
Hex. Chromium	mg/kg	No Goal	<1.8	<1.4	<0.08	<1.6	<0.06
Selenium	mg/kg	100	14.9	<46.1	<4.4	<6.1	<5.6
Silver	mg/kg	No Goal	29.7	37.3	28.4	<8.9	38.9
Oil and Grease	mg/kg	No Goal	229760	<53433	54573	86557	--
pH (min / max)	s..u.	No Goal	7.6 / 8.5	6.8 / 7.2	6.6 / 7.5	6.8 / 7.4	--
Ammonia	mg/kg	No Goal	41.3	6642.1	6454	6089	--
Phosphorus	mg/kg	No Goal	14125	951.3	7406.2	20489	--
Phenol	mg/kg	No Goal	33.8	30.9	40.3	63.5	36.7
TPH	mg/kg	No Goal	24975	<14029	24889	41273	--

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHWEST REGIONAL OFFICE

March 10, 2011

Daniel H. Rowe, Jr., Manager
The Municipal Sanitary Authority of the City of New Kensington
120 Logans Ferry Road
New Kensington, PA 15068-2046

Re: Sewerage
Municipal Sanitary Authority of the City of New Kensington (MSANK) STP
NPDES PA0027111
Headwork's Analysis
City of New Kensington
Westmoreland County

Dear Mr. Rowe:

This is in response to your March 7, 2011 letter.

I contacted U.S. EPA Pretreatment Coordinator, Mr. John Lovell, regarding your request to delay conducting a headwork's analysis until the next permit renewal cycle and learned that MSANK does not qualify to do so. The Department, therefore, cannot approve your request.

40 CFR 122.44(j)(2) requires POTWs provide a "written technical evaluation of the need to revise local limits" after permit issuance, and that is what the headwork's analysis provision is implementing. EPA may have looked favorably at your request if monitoring during the previous permit cycle demonstrated your plant consistently met all of the influent, effluent, and sludge goals established as part of the previous local limits evaluation. However, based on existing data, elevated levels of nickel and zinc (meaning exceedances of the exceptional quality standards for land application of sludge) makes MSANK ineligible to skip the re-evaluation for this permit cycle. Sludge land application standards are the goal even if a POTW does not land apply because one of the objectives of the pretreatment program (40 CFR 403.2) is to improve the opportunity to reclaim and recycle sludge. The exceedances of the sludge goals suggest that the local limits may need to be made more stringent in order for the MSANK STP to meet those goals.

If MSANK believes the re-evaluation would result in maintaining the current local limits, please provide a modified evaluation to satisfy the re-evaluation requirement. Under this approach, please review data that went into the previous evaluation to demonstrate that no changes have occurred. You must demonstrate that the criteria that went into the evaluation (NPDES limits, water quality standards, sludge standards, inhibition criteria) have not changed, and that other site specific data have not changed including flow rates, removal rates and background concentrations. This demonstration must be based on data that has been collected since the last re-evaluation, such as the quarterly influent, effluent, and sludge monitoring data required by the NPDES permit.

Please note that since the permit was re-issued on June 24, 2010, the list of pollutants and sampling plan was due September 24, 2010, and the re-evaluation is due June 24, 2011.

Should you have any questions, please feel free to call Mr. Lovell at the following telephone number: 215.814.5790. You may also write to him at his e-mail address: Lovell.John@epamail.epa.gov or at the following mailing address:

U.S. EPA-Region III
Pretreatment Coordinator (3WP41)
1650 Arch Street
Philadelphia, PA 19103-2029

Copies of all correspondence and reports dealing with this issue shall be sent to the Department at the address listed below.

Sincerely,

David R. Ponchione

David R. Ponchione
Environmental Engineer
Water Management

cc: John Lovell – U. S. EPA Region III

bcc: D. Leone
D. Ponchione
r
r(2) NPDES PA0027111

DRP:lmp